

# CHECKLIST ENVIRONMENTAL ASSESSMENT

## MONTANA FISH, WILDLIFE & PARKS

### Region 6, Migratory Bird Stamp Project

Project Name: Mosquito Creek Marsh Proposed Implementation Date: Summer/Fall 2000

Proponent: Montana Fish, Wildlife & Parks (FWP)

**Type and Purpose of Action:** Construct dam embankment to develop a 29.1 acre reservoir for use by waterfowl, shorebirds, and other wildlife as well as for livestock water. The dam will be equipped with a primary spillway tube and will be capable of drawdown for managing water levels or for allowing water to pass to downstream senior water users.

Fill for constructing the embankment will be borrowed from the side of a hill along the north side of the drainage and will be re-faced to a natural looking slope. The estimated fill required for this project is 20,000 cubic yards. All disturbed areas will have top soil spread over them and will be seeded to a native grass seed mix.

Location: SE ¼ Section 22, T37N, R41E  
Approx. 7 miles N and 2 miles west of Glentana

County: Valley

#### I. PROJECT DEVELOPMENT

1. **PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:** Provide a brief chronology of the scoping and ongoing involvement for this project.

FWP has been working with two landowners on this project. Don Risa owns the land where the embankment is proposed for construction and Larry Robertson owns the land up stream which will be flooded periodically during high runoff events. Agreements have been signed by both landowners which allow for the project to proceed. The agreement with Mr. Risa is for 30 years and the agreement with Larry Robertson is perpetual.

DNRC published a public notice for notifying downstream water users. DNRC has also designated the project as "Not High Hazard". The estimated volume of this project is 116.5 acre-ft.

FWP contacted the Ft. Peck Tribe Water Resources Office (Tom Escarcega) to discuss the project with them. They did not object to the project but did request a draw down structure be included in the design.

Total Cost associated with this project is estimated to be \$113,000. This includes approximately \$40,000 for design, soil testing, and construction management, which will be Ducks Unlimited Inc.'s contribution and the remaining \$73,000 for construction which will be paid for by a combination of North American Wetland Conservation Act and Montana Migratory Bird Stamp funds.

2. **OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:**

Form 600 Beneficial Water Use Permit - Issued by DNRC

Dam Hazard Classification - Classified by DNRC as "Not High hazard"

3. **ALTERNATIVES CONSIDERED:**

Alternative A. Construct project as described: Preferred Alternative  
Alternative B. No Action Alternative: under

this alternative, no reservoir would be constructed on this site at this time.

## II. IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS
	<p>N = Not Present or No Impact will occur. Y = Impacts may occur (explain below)</p>
<p><b>4.GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b> Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>[n] Top soils will be conserved and spread back over the borrow area as well as the dam embankment. All disturbed sites will be seeded back to native grass species.</p>
<p><b>5.WATER QUALITY, QUANTITY AND DISTRIBUTION:</b> Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p>[n] The upstream watershed for this proposed project is approximately 5.5 square miles in size. Based on watershed size, the mean annual runoff for this drainage is estimated to be 181 ac-ft <math>\pm</math> 31% average standard error (utilizing regression equation for Region 1 from Omang, R.J. and C. Parrett. 1984. A Method for Estimating Mean Annual Runoff of Ungaged Streams Based on Basin Characteristics in Central and Eastern Montana. photocopy). Mosquito Creek generally flows only during spring snowmelt and less regularly during summer storm events. The proposed reservoir would rely primarily on snowmelt for filling. There is no active surface spring activity at the proposed construction site. The watershed is mostly native grassland and is expected to provide good quality water (i.e. low silt loads and low or no agricultural chemicals).</p> <p>There are no known downstream water users on Mosquito Creek. The creek flows into the West Fork of the Poplar River approximately 1.3 miles downstream. Given the estimated yield of the watershed, water is expected to flow through the primary spillway of the proposed dam during years of average to below average runoff.</p>
<p><b>6.AIR QUALITY:</b> Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[n] Long term air quality will not be impacted by this project. Short term dust may occur during actual construction which may last 1-3 weeks.</p>
<p><b>7.VEGETATION COVER, QUANTITY AND QUALITY:</b> Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[n] Disturbed areas will be seeded back to a native grass mix.</p> <p>The reservoir will flood 29.1 acres of grassland. The project area is part of an extensive corridor of grassland that follows the West Fork of the Poplar River from Canada to south of Scobey. This project will enhance rather than significantly impact this vast grassland area. By providing needed livestock water, this project will help maintain the area as grassland habitat.</p>

## II. IMPACTS ON THE PHYSICAL ENVIRONMENT

The proposed reservoir is not expected to have significant impact to downstream riparian vegetation. Additional watershed enters Mosquito Creek downstream of the proposed reservoir site. In addition, as with many dams, this reservoir may provide some seepage or subsurface water contribution which may enhance downstream vegetation.

After review by the Montana Natural Heritage it was determined there will be no significant impact to rare plants or cover types.

**8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:** Is there substantial use of the area by important wildlife, birds or fish?

[y] Due to the extensive grassland habitat and adjacent West Fork of the Poplar River floodplain habitat, this area is attractive to a variety of wildlife. This project will enhance the areas by providing a relatively large and shallow semi-permanent wetland. Although the West Fork does also provide wetland habitat, the continuous water flows and annual scouring does not provide as high of quality wetland habitat for some shorebirds and waterfowl species.

The proposed reservoir project is not expected to have any impact on downstream aquatic life. The West Fork of the Poplar does support some fish species. Whereas this proposed project affects a 5.5 square mile watershed, the West Fork of the Poplar has approximately 218 square miles of drainage upstream from the Mosquito Creek confluence and gains an additional 75 square miles of watershed within 2 miles downstream of the confluence.

**9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:** Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Sensitive Species or Species of special concern?

[n] After review by the Montana Natural Heritage it was determined there will be no significant impact to threatened or endangered species or species of concern associated with the project area. This project will, however provide wetland habitat for a variety of shorebirds which have shown declining numbers over the past 10+ years.

**10. HISTORICAL AND ARCHAEOLOGICAL SITES:** Are any historical, archaeological or paleontological resources present?

[n] According to a search of the Montana State Historical Preservation Office database, there are no known archaeological sites associated with the project area. A field survey of the project site was conducted by a U.S. Fish and Wildlife Archaeologist and no significant archeological or paleontological resources were found. The borrow site for constructing the embankment occurs along a hill slope. These types of sites are generally considered to be less sensitive for disturbing archaeological remains as compared to hill tops. However, if

## II. IMPACTS ON THE PHYSICAL ENVIRONMENT

	archaeological resources are unearthed, construction will be halted and an archaeologist will be consulted.
11. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[n]
12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[n]
13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?	[n]

## III. IMPACTS ON THE HUMAN POPULATION

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
14. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[n] A dam hazard classification was completed by DNRC. Due to the shallowness, relatively low capacity, and lack of downstream development, the dam was classified as "Not High Hazard"
15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[n] This project will flood 29.1 acres of grassland. According to the landowner, this area was not a preferred site for livestock. The water from this project will be available for livestock. This pasture has periodically been in need of livestock water in the past.
16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[n] The construction project will provide employment for a small crew of equipment operators. In addition, the primary water control structure will likely be manufactured and purchased within Montana.
17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[n]
18. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	[n] The only increase of traffic would occur during construction which is anticipated to last 1-3 weeks. Actual impacts to roads should be minimal.
19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[n]
20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[y] This project may provide some recreational opportunities including watchable wildlife and hunting. The project area is also utilized for antelope and mule deer hunting.
21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[n]

22. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[n]
23. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[n]
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[n]

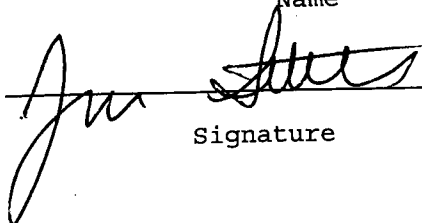
EA Checklist Prepared By: Rick Northrup Wildlife Biologist

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IV. FINDING	
25. ALTERNATIVE SELECTED:	
26. SIGNIFICANCE OF POTENTIAL IMPACTS:	
27. Need for Further Environmental Analysis:	
<input type="checkbox"/> EIS <input type="checkbox"/> More Detailed EA <input type="checkbox"/> No Further Analysis	

EA Checklist Approved By: Jim Satterfield Regional Supervisor  
Name Title

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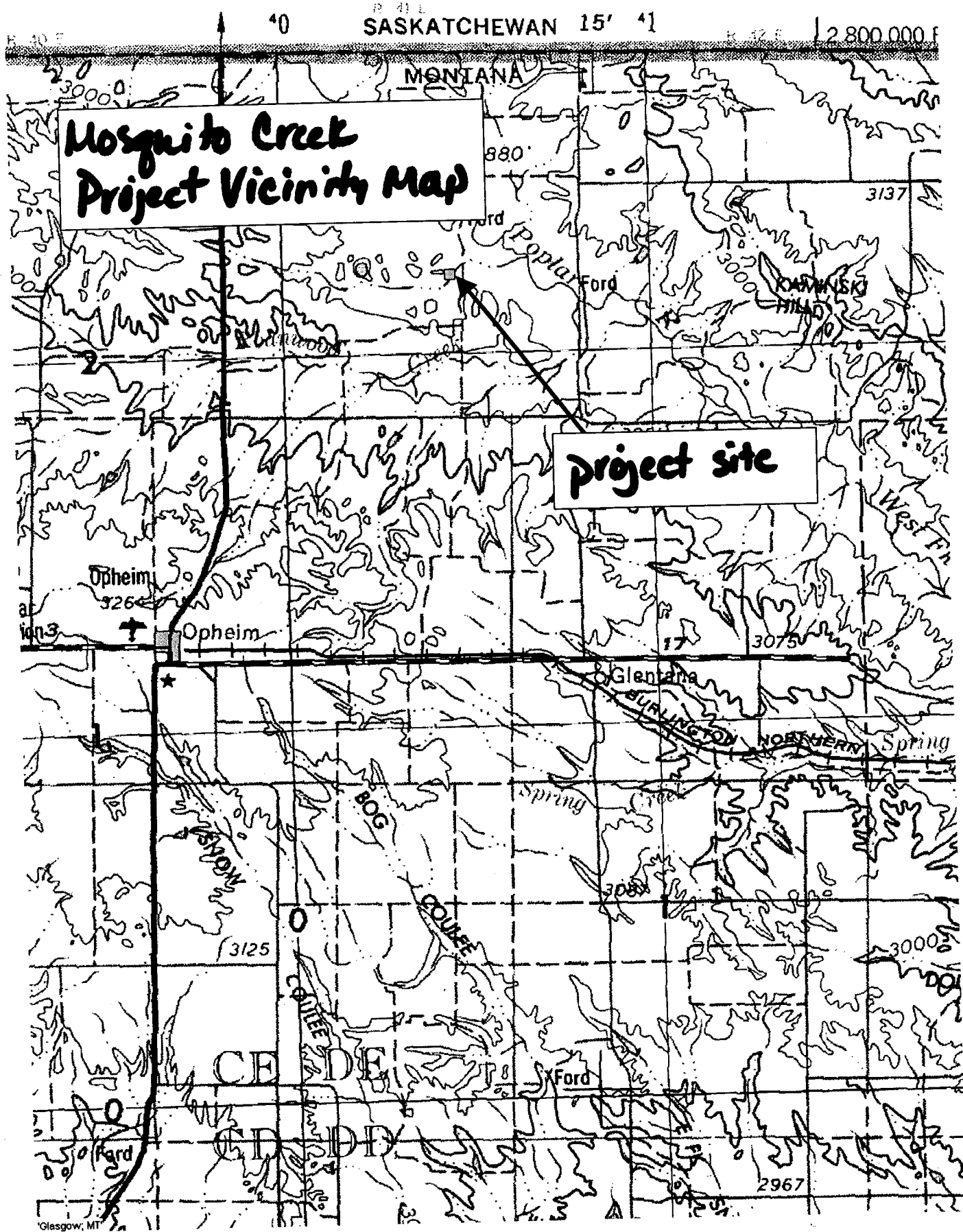
  
Signature

Date: September 6,



# Mosquito Creek Project Vicinity Map

project site



# Mosquito Creek Marsh Proposed Wetland Project

